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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,715	07/15/2003	Yoichi Momose	116220	7427

25944 7590 06/05/2006

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
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NGUYEN, DUNG T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/618,715

Applicant(s)

MOMOSE, YOICHI

Examiner

Dung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03/10/2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 14 is/are pending in the application.  
4a) Of the above claim(s) 1-4, 8, 9 and 14 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 5-7 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/14/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicants' election with traverse of Group II (claims 5-7) in paper dated 03/10/2006 is acknowledged. The traversal is on the ground that all claims is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. This is not found persuasive because Applicant provides no evidence to support such contention. In addition, group I and group II are related as process of making and product made; and, the product made of group I can be processed by a method that is different from group II as stated in the restriction requirement, so as restriction for examination purposes as indicated is proper.

The required is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa et al., US Patent No. 6,392,736, in view of Sekiguchi, US Patent No. 6,529,255, Inoue et al., US 2001/0017675 A1 and Matsuda, US Patent 6,646,689.

Regarding the above claims, Furukawa et al. disclose a method of manufacturing liquid crystal display element comprising the step of :

. forming a closed framed shaped seal material (26) over a lower substrate (21a);

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- . disposing spacers (25) with a dispersed density of 100/300/mm<sup>2</sup> (col. 13, ln 25-27);
- . dropping a liquid crystal (28);
- . gluing an upper substrate (21b) and the lower substrate (21a) together.

Furukawa et al. do not disclose the spacers being cover by a sticking layer and having a particle size in range of 0.96d to d (d = cell thickness = 2.83-3.26 microns). Inoue et al. do disclose a spacer (3a) being cover by a polymer resin (3b)(see fig. 3). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ the Furukawa et al spacer having a sticking layer (e.g., polymer) as shown by Inoue et al. in order to obtain an excellent uniform displaying property (see [0077]). In addition, Furukawa do disclose a spacer having a particle size of 4 microns which is closed enough to the claimed range of 2.83-3.26 microns. It would have been an obvious to one skilled in the art, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Furukawa et al. do not disclose the step of forming a light-blocking layer. Sekiguchi do disclose a light-blocking layer (e.g., black matrix 7) can be formed over the upper substrate (see figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ a black matrix layer over an upper substrate as shown by Sekiguchi for the purposes of shielding leakage light, so as improving display characteristics (e.g., display contrast).

Furukawa et al. do not a performing ultraviolet (UV) exposure to a surface of one of the pair of substrates using a high-pressure mercury lamp. Matsuda does disclose exposing to a surface of the LCD by UV light (e.g., mercury lamp)(col. 5, ln 20). Therefore, it would have

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been obvious to one skilled in the art at the time of the invention was made to expose an LCD substrate to an UV light for curing sealant agent purposes.

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DN  
05/30/2006

***Dung Nguyen***  
***Primary Examiner***  
***Art Unit 2871***